

## **ABSTRACT**

A method and a device for performing placement of a plurality of elements for circuit design. A potential location is assigned to each element and a placement engine is assigned to each potential location. Pairing operations are performed, in parallel, between placement engines to determine whether to perform exchange of the elements associated with the engines. Exchange determination is based both on a cost function and on randomness considerations. Also self-placement is allowed, where the placement engines are implemented on the same hardware system on which the elements are to be placed.